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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,419	09/19/2006	Volker Schadler	12810-00348-US1	1226
23416 7590 12/21/2009 CONNOLLY BOVE LODGE & HUTZ, LLP P O BOX 2207 WILMINGTON, DE 19899				
EXAMINER				
NEGRELLI, KARA B				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
12/21/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/593,419

**Applicant(s)**

SCHADLER ET AL.

**Examiner**

KARA NEGRELLI

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 12-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/226)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

**METHOD FOR THE PRODUCTION OF POLYMER FOAMS BASED ON REACTIVE**

**POLYCONDENSATION RESINS**

**DETAILED ACTION**

***Response to Amendment***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Any rejections stated in the previous Office Action and not repeated below are withdrawn.
3. The instant office action contains rejections using prior art which was not applied in rejections previously presented. Therefore, this action is properly made NON-FINAL.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 12 and 14-18, and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Vial (US 3,743,612).
6. Vial teaches a composition for producing solid foams, said composition of which comprises a latex emulsion (in which at least one styrene, butadiene, or beta hydroxyethyl acrylate may be used to form the latex) (column 3, lines 10-25 column 3, lines 60-65), and further comprising from 1 to 100 percent (based on the weight of the

copolymer in the latex) of at least one coreactive resin such as amineformaldehyde condensates (column 3, lines 25-58). The coreactive resin may comprise melamine-formaldehyde condensates (column 4, lines 11-15) and may be added to the latex as an aqueous solution (column 4, lines 22-24). Further additives such as emulsifiers or aids such as potassium oleate (ionic surfactant) may be used in the preparation of the composition (column 4, lines 53-60). The combining of the latex dispersion with the coreactive material (melamine formaldehyde condensates) is a gelling procedure, and the curing of the material to produce a foam proceeds by further interaction (aging) of these materials (column 5, lines 1-3).

7. Example 1 of Vial (column 6, lines 3-23) teaches a composition comprising styrene-butadiene latex and melamine formaldehyde resin which is combined with water to form an aqueous dispersion. The composition was air dried (column 6, lines 21-22), meaning that the limitations of claim 20 are met. The process of Vial does not comprise a step in which the gel is brought into contact with organic liquid to replace the water present in the gel by this liquid (pertaining to instant claim 1).

8. Vial does not expressly teach that the foamed products has a porosity of at least 70% by volume. However, since nearly identical products are used in an identical process as taught in instant claim 1, one of ordinary skill in the art would reasonably expect the foam of Vial to have the same properties as the foam of the instant invention. Case law holds that a material and its properties are inseparable. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 19 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vial (US 3,743,612).

11. Vial teaches the composition as applied to claim 12 above in which the melamine formaldehyde condensate coreactive material may be present in an amount of from 1 to 100 percent based on the weight of the copolymer in the latex (column 3, lines 24-27). This range overlaps the ratio of 10:1 to 1:10 of instant claim 19 and the range of 5:1 to 1:5 of instant claim 23.

12. It is well settled that where the prior art describes the components of a claimed compound or compositions in concentrations within or overlapping the claimed concentrations a prima facie case of obviousness is established. See *In re Harris*, 409 F.3d 1339, 1343, 74 USPQ2d 1951, 1953 (Fed. Cir 2005); *In re Peterson*, 315 F.3d 1325, 1329, 65 USPQ 2d 1379, 1382 (Fed. Cir. 1997); *In re Woodruff*, 919 F.2d 1575, 1578 16 USPQ2d 1934, 1936-37 (CCPA 1990); *In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974).

13. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vial (US 3,743,612) and further in view of Reck et al. (US 6,569,970).

14. Vial teaches the composition as applied to claim 12 above but does not expressly teach the size of the polymer particles to be used to produce the latex dispersion. However, Reck et al. teach aqueous polymer dispersions comprising styrene or esters of acrylic and methacrylic acids (column 4, lines 8 and 16-23) in which the polymer particles have an average diameter of from 150 to 250 nm (column 8, lines 47-51).
15. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use polymer dispersions which have the particle diameter disclosed by Reck et al. in the composition disclosed by Vial because Vial does not teach a specific particle size. One of ordinary skill in the art would look to similar aqueous dispersions to determine workable sizes. It would have been obvious that a small particle diameter, such as the particle diameter disclosed in Reck et al., ensures a more uniform distribution of particles within the dispersion.

### ***Response to Arguments***

16. Applicant's arguments with respect to claims 12-22 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KARA NEGRELLI whose telephone number is

(571)270-7338. The examiner can normally be reached on Monday through Friday 9:30 am EST to 6:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571)272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KARA NEGRELLI/  
Examiner, Art Unit 1796

/Randy Gulakowski/  
Supervisory Patent Examiner, Art Unit 1796